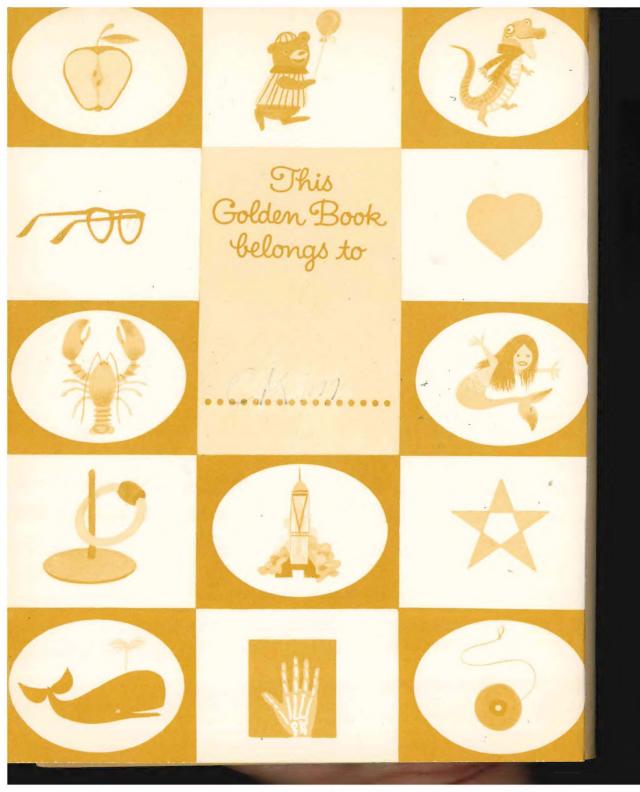


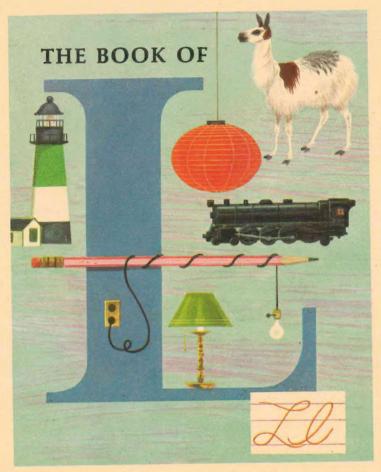
THE BOOK OF

This book is all about laboratories and leaves, lizards and llamas, and lots of other exciting L's.

a Golden Book



MY FIRST GOLDEN LEARNING LIBRARY



CONSULTANT · BERTHA MORRIS PARKER
BY JANE WERNER WATSON · PICTURES BY
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laboratory

A laboratory is a room where scientists work. Scientists do different kinds of work.



Some study rocks. Some study plants.

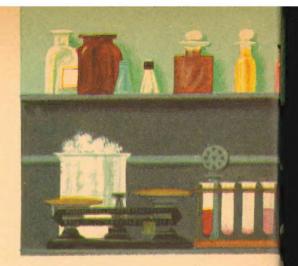


Some study animals.

Some study stars.

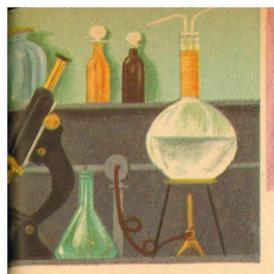
There are many sciences.

(See *science* in the first S book.)



Scientists have different kinds of laboratories. In their laboratories they carry on experiments. They have a great deal of laboratory equipment to work with. Most laboratories have outlets for electricity and sinks for running water. Most of them have long tables. They have stools for the scientists to sit on. On top of the tables are machines and tools and containers. Scientists often heat things. They may use gas burners

called Bunsen burners.



Scientists sometimes
heat things in glass
so they can see what happens.

They use special glass that does not break when it gets hot.

They have glass containers of different kinds—flasks and bottles and beakers and test tubes.

Scientists measure things.

They may have scales or calipers or other tools for measuring.

A scientist may have helpers in his laboratory.

They are called laboratory assistants.

lace

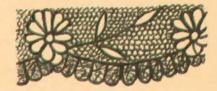
Lace is pretty.

It is made of thread.

So is cloth.

But lace is more open than cloth.

Brides like to have veils made of lace or trimmed with lace.



is made by machine.
But the finest lace
is still made by hand.
Tatting is a handmade lace.
The thread is wound on
a shuttle, or bobbin.
The shuttle is moved swiftly
in and out among threads

in the lacemaker's fingers.



is made
by twisting threads around
pins stuck in a pillow.
The pins mark the pattern.

Making beautiful lace is hard work for the eyes.



In olden days gentlemen as well as ladies wore lots of lace.

lady

A lady is a woman who is pleasant and thoughtful and nice to be with.

Any little girl can grow up to be a lady.



A lake is water with land all around it.

A very small lake may be called a pond.

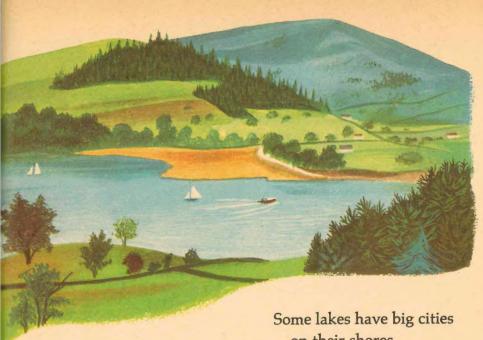
A very large lake may be called a sea.

Most lakes get their water from rains and melting snows.

Streams bring the water to the lake.

Most lakes have rivers running out of them.

The rivers carry lake water to the oceans far away.



Some lakes are high in the mountains.



Some lakes are low in the desert.



Their water may be salty.

on their shores.



Big ships cross these lakes to the cities.

Some lakes are better for small boats—rowboats or canoes.

Many people spend vacations at cottages on lakes.

They swim and boat and fish and have a happy time.

lamp

A lamp gives light. Most lamps in our homes today are electric lamps.



They may be
on walls or ceilings.
Some lamps
stand on tables.
We call them table lamps.
Some stand on the floor.
We call them floor lamps.
We can move these lamps about.

An electric lamp must have wires to bring electricity.



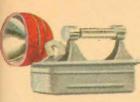
It must have a bulb or tube to give out light.



Before the days of electricity,
lamps burned gas
or kerosene or other oil.
The oil traveled up a wick.
Some had glass chimneys.
Some had pretty shades as well.
Very early oil lamps
were just little bowls
that held the oil and wick.



lantern





A lantern

is a light in a case.

We may use a lantern to see by out-of-doors.

The case protects the light.

Long ago people
carried torches
of burning sticks or reeds
to light their way at night.

But rain or wind could put out a torch.

So they began to put a covering around the flame.

Most of our lanterns have covers of glass.

Some lanterns have covers of paper.

Japanese lanterns do.
They are very pretty.
Some Japanese lanterns
have fireflies inside

to give the light.



Gas lamps took their place.

A lamplighter had to light each lamp when evening came.



Now most street lights are electric.

So are automobile headlights and many hand lanterns.

A lantern tower beside the sea is called a lighthouse.

A lantern floating on the sea is called a light buoy.

Lighthouses and light buoys warn sailors of rocks.

laundry



We wash our clothes, linens and towels to make them clean.
We call these things laundry when we wash them.
We say we launder them.
We may send our clothes to a big laundry.



A laundryman picks them up.
Or our mother may
wash them herself
in a washing machine.
She puts the clothes in.
She adds soap powder.
She closes the door.
She turns on the machine.
Water runs in.
The clothes swish around.
Soon they are clean.
Maybe our mother
uses a drying machine, too.
She puts in the wet clothes.

She turns on the machine.
Soon they are dry.
In most lands,
mothers do not have
machines like ours.



They may use washtubs.
They may rub clothes
on washboards
to get the dirt out.
They hang the clothes out
to dry on clotheslines,
or they spread them out
in the sun.



In some lands, all the women of the village do their laundry together.

They take their clothes to the village fountain.

They have a good visit while they wash.

Or they may go to a river or a lake.

They may wash their clothes on the stones along the bank or shore.

They spread out their clothes in the sun to dry.

In some places, washermen wash clothes in bundles.

They lift the wet bundles and slam them down on rocks time after time to loosen the dirt.

They press the clothes smooth with flatirons filled with hot coals.

In every land,
people like to have
nice, clean clothes
to wear.



lead pencil

A lead pencil is to write and draw with.

Lead is a heavy gray metal. But really there is no lead in a pencil.

The black is graphite.
It is mixed with clay,
squeezed out thin
and baked.



The hard stick of graphite is put into a sandwich of wood.

The two pieces of wood are stuck together.
The pencil is painted.

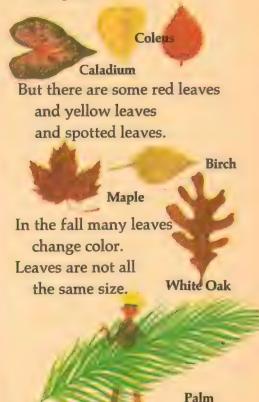
Sometimes an eraser is added at one end.



If you make a mistake, you can rub it out with the eraser.

leaf

In the summer most leaves are green.



Palm leaves are very big.



Clover leaves are little.

Leaves are not all the same shape.

Water Lily

Redbud

Some are heart-shaped.
Some are long and narrow.

Pine

Many evergreen trees have leaves so long and narrow that they are called needles. Some leaves are shaped like mittens.



Sassafras

Olive

Some leaves are made up of little leaflets.



Staghorn Sumac

This is just one leaf of a sumac bush.



Osage Orange

Some leaves have smooth edges. Some have edges like a saw. Blackjack Oak

A leaf always has veins in it. Veins are tiny pipes for carrying water and food.

The veins in a leaf make a pattern.

They do not all make the same pattern.

A leaf is a tiny factory. It makes food for the plant

It makes food for the plant it grows on.

Sugar is one of the foods a leaf makes.

It uses water and a part of the air to make sugar.

A factory has to have energy to make it run.

A leaf factory gets its energy from sunshine.



leather

Leather is made from animal skin. The skin or hide of cows, goats and pigs makes good leather.

So does the skin of alligators and crocodiles and of some snakes and lizards.

The skin must be cleaned

and scraped.

Then it is tanned.

It may be soaked

in a mixture made

from the bark

of certain trees.

It may be tanned

in other ways.

After the tanning,

the skin is treated with oil.

Leather may be thick and stiff. Or it may be thin and soft.



Shoe soles are made from thick, stiff leather.



So are some suitcases.



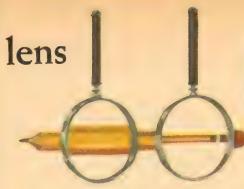
Gloves and ladies' shoes are made from soft, thin leather.

Some leather is rubbed to look like soft cloth.

It is called suede.

Some leather is polished to shine.

Good leather lasts a long time.



A lens is usually made of glass.

It has a special shape.

When we look at things through a lens, they look bigger or smaller.

A lens thick in the middle makes things look bigger.

We say it magnifies.

A lens thin in the middle makes things look smaller.

Our eyes have lenses inside to help us see well.

Of course, these lenses are not glass.



Eyeglasses have lenses.
They make people see better.
Cameras have lenses.



Telescopes have lenses.

A telescope helps us see
the moon and stars better.



Microscopes have lenses.
A microscope helps us see tiny things better.
Scientists use lenses in many ways.
Some use microscopes.
Some use telescopes.
Some use other instruments with lenses in them.
Scientists learn many things by using lenses.



letter

The alphabet is made up of letters.

(See alphabet in the A book.)
Every word in this book
is made up of letters.

There is another kind of letter.

A letter brings us news from someone.

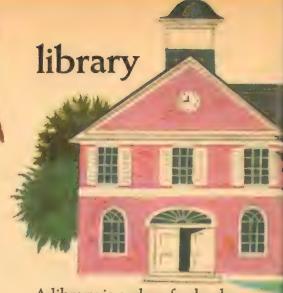
Or we may
write a letter
to tell someone how we are,
to say, "Thank you,"
or to send our love.

We fold the letter and put it in an envelope.



We write on the envelope the name of the person the letter is for.

We write where he lives.
And we mail the letter.
(See *mail* in the M book
for what happens then.)



A library is a place for books. Some homes have a book room called a library.



You may have a library corner in your own room.

There have been libraries as long as there have been books.

(See book in the B book.)



Most towns have a library.
You get a library card.
It has your name on it.
Then you can borrow books from the library.
There is a librarian at the desk.

The librarian will help you choose a book if you wish.

There are lots and lots of books on shelves.

There are tables with chairs just the right size if you want to sit and read. This is fun.

A library is a friendly place to go to.



Some libraries are on wheels.
They are called bookmobiles.
If you live in the country,
 a bookmobile may come.
You can borrow books.
You can return those
 you have read.



Some libraries are huge.
You can read books all your life.
There will always be more
for you to read!

light

We need light to see by.

Daylight is light

we get from the sun.

The sun is very bright.

Its light falls on a flower.

The light bounces

from the flower to our eyes.

We see the flower.

Sunlight falls on a friend's face.

The light bounces from the face
to our eyes.



We see our friend.



In shadows
where sunlight is not strong
we do not see so well.

At night
the sun is not shining
on our part of the earth.
(See day and night in the D book.)
But it may be shining
on the moon up in the sky.
The sunlight bounces
from the moon to our eyes.



We see the moon.

Stars are like our sun.

They give bright light, too.

But stars are very far away.

We cannot see to do things
by their light.

The sun and stars give light
because they are hot—
hotter than fire.

Fire gives light, too.



Candlelight is firelight.



Electric light bulbs give light because wires inside them get white-hot.



When the light falls
on an open book at night,
light bounces to our eyes.
And we can see to read.
Wherever there is light
to light up the dark,
we can see.





lighthouse

A lighthouse is a tower that has a big light at the top.

It warns ships of rocks and sandbars.

A lighthouse keeper keeps the light burning. He may sound a foghorn, too.

When it is hard
to see the light
through the fog or storm,
sailors will hear
the deep voice
of the foghorn.

They will know that rocks or shallows are near.

(See *fog* in the F book and *lantern* in this book.)

linen

Linen is a kind of cloth made from flax plants.
(See cloth in the C book.)
To make linen you cut the flax stems.
You soak the stems in water.
Stringy fibers in the stems come loose.

You comb these fibers straight.
You stretch them out.
While they are wet,
you spin them into thread.
This is linen thread.
You can weave it into cloth.



Heavy linen cloth makes sails for sailboats.

It is called sailcloth.

Fine linen makes handkerchiefs and tablecloths and napkins.
Linen makes pretty tea towels and suits and dresses, too.

linoleum

Linoleum covers floors.
It is easy to clean.
It cuts down noise.



Linoleum is good for rooms where children play. It is good for kitchens, too.

lion

The lion is a big wild animal.

It is

cousin

of the cat.

(See cat in the C book.)

The lion is called the king of beasts.

It has a loud roar.

The father lion has a mane of heavy hair on his neck and head.

The mother lion is called a lioness.

She has no mane.

The mother lion takes care of the babies.

They are called cubs.

You can see lions

in almost any circus or zoo.

Most lions come from Africa.



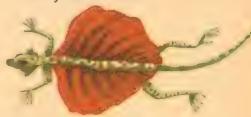


Lizards are reptiles.

They are related
to alligators, crocodiles,
turtles and snakes.

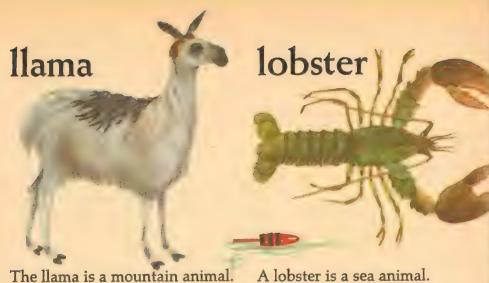


Most lizards live where it is warm the year around.



Lizards can run fast.
The flying dragon can almost fly.
Some lizards are rather large.
But all lizards of today
are tiny compared with
their giant dinosaur cousins
of long ago.

(See dinosaur in the D book.)



The llama is a mountain anima.

It lives in the high Andes
in South America.

The llama has been tamed.

We say it is a domestic animal.

It carries heavy loads.

Its wool makes good cloth.

The llama has a wild cousin
called the vicuña.

Vicuñas are very, very shy.

Their wool is fine and soft.

It makes soft, warm cloth

A lobster is a sea animal.

It has a hard covering.

As it grows,
 a lobster sheds its hard coat
 and grows a bigger one.

Lobster meat is good to eat.

Lobster fishermen put down
 lobster pots to catch lobsters.

They put dead fish in them,

Lobsters eat dead fish.

They walk into the pots.

Then they cannot walk out again.

They are trapped.







A lock closes a door or box so it cannot be opened easily. Most locks need a key to open them.



locomotive

Older kinds
of electric locomotives
get their electricity
from distant power plants.



The electricity may come to these locomotives through wires overhead. It may come to them through a third rail running along the track.



A locomotive is an engine that runs a train.

The most modern locomotives are Diesel-electrics.

Diesel engines burn oil to make electricity.

The electricity drives the locomotive.

The earliest locomotives had steam engines.

They were steam locomotives.

They had a firebox.

The fire boiled water.

The water boiled into steam.

The steam pushed parts that turned the wheels.



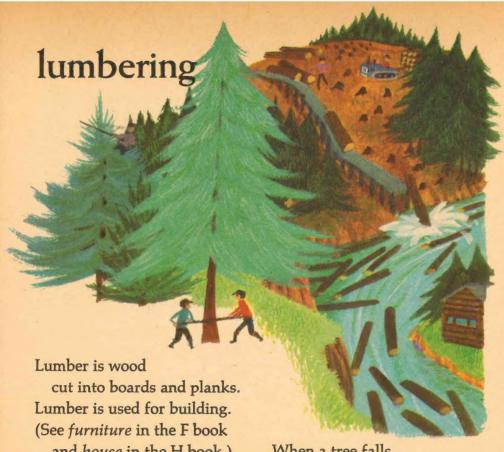
Steam locomotives used a lot of water. Big water tanks stood beside the tracks to fill the boilers of the locomotives.

Early steam locomotives were small.



Later ones were big and powerful. They used a great deal of coal. A coal car came behind the locomotive. So it was easy to shovel more coal into the firebox.

A steam locomotive had a bell. The engineer could ring it. A steam locomotive had a whistle, too. When the engineer pulled a cord, the whistle blew. What a wonderful sound!



Lumber is wood
cut into boards and planks.
Lumber is used for building.
(See furniture in the F book
and house in the H book.)
Trees are cut in the forest
by men called lumberjacks.
The men live in lumber camps.
They sleep on bunks
in a bunkhouse.
They eat in the cookhouse.

from tall trees.

Some saw through the trunks of trees
to make them fall.

Some cut branches

When a tree falls, it is sawed into logs. The logs are hauled away on a truck.

Or a lumberjack with a tractor takes the logs to a little narrow railroad or to a river.

He may slide them down a slide into the river.

The logs float down the river to the sawmill.



At the sawmill, the logs are split by saws. They are cut into neat pieces of lumber.

Each one is a special size. The lumber is stacked up so that air can reach it. The wood dries out. It is ready to use.

Trucks and trains carry it away to towns and cities.

Every city and town has a lumberyard.

The lumberyard has stacks of boards and planks of many sizes.

It has lumber from different kinds of trees.

There you can buy all the wood you need to build a house.

